

## MIRIDAE HERETOFORE UNRECORDED FROM INDIANA (HEMIPTERA).

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Blatchley in his "Heteroptera of Eastern North America" records 148 species and varieties of Miridae as occurring in Indiana. Since then Blatchley (2)<sup>2</sup> has added two species and Knight (3, 4) one species and one variety, making a total of 152 species and varieties known from the state at present.

The writer has been making rather extensive collections of plant bugs in Indiana during the past two years and wishes at this time to record 20 species and varieties of mirids which have not been reported from the state before.

Dr. H. H. Knight, of Iowa State College, has examined all of the specimens upon which these records were based and has either named them for the writer or checked his determinations.

In addition to the species listed as new to the state, the writer has taken a series of 34 specimens of *Amblytylus nasutus* Kirschbaum from Lawrence and Morgan counties. This species was described by Blatchley (2) as *A. vanduzeei*, but Knight (5) showed that it is *A. nasutus*, a European species. This is the third time that this species has been reported from the United States.

The initials of the collector are placed in parentheses after the collection data. These collectors and their initials are: H. O. Deay—H. O. D., G. E. Gould—G. E. G., L. I. Musgrave—L. I. M., C. M. Packard—C. M. P., and A. W. Trippel—A. W. T.

### MIRIDAE NEW TO INDIANA.

*Platytyllus fraternus* Knight, 1923. 1 specimen on willow, Morgan Co., June 21, 1932 (L. I. M.).

*Phytocoris erectus* Van Duzee, 1920. 1 specimen, Morgan Co., July 9, 1931 (L. I. M.); 1 specimen Lawrence Co., Aug. 21, 1932 (L. I. M.).

*P. brevisculus* Reuter, 1876. 1 specimen on Scotch pine, Sept. 21 (L. I. M. and H. O. D.), and 1 specimen at light, Sept. 25, 1932, Tippecanoe Co. (L. I. M.).

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<sup>1</sup> Contribution from the Entomological Laboratories, Purdue University. The data used here were gathered by the writer during the preparation of his undergraduate thesis under the supervision of H. O. Deay.

<sup>2</sup> Numbers in parentheses refer to literature cited.

- Dichrooscytus viridicans* Knight, 1918. 71 specimens, on red cedar, Sept. 21, 1932 (L. I. M. and H. O. D.); 11 specimens, on red cedar, Oct. 13, 1932 (L. I. M.), Tippecanoe Co.
- Horcias dislocatus gradus* Knight, 1923. 1 specimen, Morgan Co., June 28, 1932 (L. I. M.).
- H. dislocatus nigriclavus* Knight, 1923. 1 specimen, Morgan Co., May 29, 1932 (L. I. M.).
- Capsus ater semiflavus* Linnaeus, 1758. 2 specimens, on dewberries, St. Joseph Co., June 15, 1932 (A. W. T.); 1 specimen, Tippecanoe Co., June 11, 1932 (L. I. M.).
- Neoborus canadensis* (Van Duzee, 1912). 1 specimen, Morgan Co., May 29, 1932 (L. I. M.).
- Ceratopsus fasciatus* (Uhler, 1877). 1 specimen on wild grape, St. Joseph Co., Aug. 21, 1932 (A. W. T.).
- C. uniformis* (Knight, 1927). 1 specimen on elm, Lawrence Co., Aug. 2, 1932 (L. I. M.).
- Lopidea marginalis* (Reuter, 1909). 1 specimen, Clark Co., July 26, 1931; 1 specimen, Morgan Co., July 14, 1931 (L. I. M.).
- Diaphnidia pellucida* (Uhler, 1895). 1 specimen, Morgan Co., June 13, 1932 (L. I. M.).
- D. capitata* (Van Duzee, 1912). 3 specimens, on hickory and mulberry, Lawrence Co., Aug. 21, 1932 (L. I. M.).
- Orthotylus ornatus* (Van Duzee, 1916). 1 specimen, Kosciusko Co., May 25, 1932 (G. E. G.).
- O. modestus* (Van Duzee, 1916). 1 specimen, Morgan Co., June 20, 1931 (L. I. M.).
- Camptobrochis poccilus* (McAtee, 1919). 1 specimen, Tippecanoe Co., April 18, 1931 (L. I. M.).
- Plagiognathus delicatus* (Uhler, 1887). 2 specimens, Morgan Co., June 13, 1932 (L. I. M.).
- P. albifacies* (Knight, 1927). 1 specimen, Morgan Co., June 14, 1931 (L. I. M.).
- P. salicicola depallens* (Knight, 1929). 1 specimen, Elkhart Co., June 9, 1932 (G. E. G.).
- Campylomma verbasci* (Meyer, 1843). 1 specimen, Kosciusko Co., June 7, 1932 (G. E. G.).
- Labopidea allii* (Knight, 1923). 9 specimens, on onions, Posey Co., June 17, 1931 (C. M. P.); 1 specimen, St. Joseph Co., June 15, 1931 (A. W. T.). This is the most eastern record of this species.

## LITERATURE CITED.

1. Blatchley, W. S. Heteroptera or true bugs of Eastern

- North America with special reference to the faunas of Indiana and Florida. 1116 pp., 12 pls., 215 figs. Nature Publ. Co., Indianapolis, 1926.
2. Blatchley, W. S. Notes on the Heteroptera of Eastern North America with description of new species, I. *Jour. N. Y. Ent. Soc.* 36(1): 1-23. 1928.
  3. Knight, H. H. Notes on the species of *Polymerus* with description of four new species and two new varieties (Hemiptera, Miridae). *Canad. Ent.* 58(7): 164-168. 1926.
  4. Knight, H. H. Notes on the distribution and host plants of some North American (Hemiptera). *Canad. Ent.* 59(2): 34-44. 1927.
  5. Knight, H. H. An European plant bug (*Amblytylus nasutus* Kirschbaum) recognized from Massachusetts (Hemiptera, Miridae). *Ent. News* 41(8): 256-258. 1930.
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**Memythrus fraxini** Hy Edwards, a New Record for New York State:—This clearwing moth, originally assigned to the regions of the Rocky Mountains, in recent years has been captured and bred in numbers by Alex K. Wyatt, Emil Beer and V. G. Sasko in Illinois and Wisconsin. This is a borer in Virginia Creeper, *Ampelopsis quinquefolia*, the larva attacking the main roots several inches below the ground. Pupation takes place within the larval galleries and the moths appear in late July and during August. Cultural varieties of *Ampelopsis*, such as Boston Ivy, also are attacked.

The only previous Eastern record in the writer's collection is a male example collected by E. L. Bell at Ogdensburg, N. J., July 10, 1927.

Spring cleaning in a neighbor's garden here at Hartsdale, N. Y., revealed a long established infestation of this borer in the up-rooted, common *Ampelopsis*. A good series of living larvae are now held for breeding (April 23, 1934). After years of futile search for the insect, isn't it amazing to find it at one's very door!

The females of this species run uniformly alike throughout their range from West to East, but the males show a striking difference, those from the West having the primary wings wholly bronze-black, while the males from the Middle West and from the East have them with large transparent areas surrounding the discal mark. This difference has been recognized in the name *Memythrus fraxini* form *vitriosa*, restricted to the males from the Middle West and the East. GEO. P. ENGELHARDT, Hartsdale, N. Y. (April 15, 1934).